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Minerals + Energy

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LIB30200005 - ST. CLAIR
SAUGET SITES (AREA II) SAUGET
SE / COMPLIANCE ENT

September 29, 1989

William C. Child, Manager
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

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Re: Sauget Sites - Area II
St. Clair County, Illinois

Dear Mr. Child:

This is in further response to your letter of August 7, 1989 with respect to the subject area addressed to Amax Zinc Company, Inc. As previously advised in my letter to you dated August 18, 1989, all of the stock of Amax Zinc Company, Inc. was purchased and the name of the company was changed in September 1988 to Big River Zinc Company, the current owner and operator of the zinc smelter and refinery in Sauget, Illinois. All of the plant records and files were transferred by Amax to Big River Zinc Company at the time of the sale of this facility.

In order to respond to the request for information in your letter, we have interviewed former Amax employees and examined available files and documents retained by Big River Zinc Company. Based on these interviews and file search, it appears that the only waste materials or substances transported, stored and/or disposed by Amax Zinc Company, Inc. in the subject area was wastewater and sludge generated by the Village of Sauget sewage treatment plant in treating the effluent from the Amax zinc smelter and refinery. As described more fully below, Amax discharged wastewater from the zinc plant to the Village of Sauget sewer system from the time that Amax restarted this plant in March 1973 until Amax sold all of the stock of Amax Zinc Company, Inc. and transferred the plant to Big River Zinc Company in September 1988. It is our understanding and belief that the Village of Sauget disposed of sludge generated by the Village sewage treatment plant in lagoons or holding

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ponds located in the subject area from 1972 until mid-1980. We have found no documentation that Amax Zinc Company transported, stored or disposed of any waste materials or substances in this area other than plant wastewater and the sludge that was generated by the Village of Sauget treatment plant from treating such wastewater.

Exhibit A attached to this letter generally describes the chronology of the Amax Zinc Company operation and the wastewater discharged from this operation to the Village of Sauget sewer system. As noted in Exhibit A, Amax was not required to measure the discharge flow or analyze the wastewater for specific substances. As a result, the discharges from the Amax plant to the Village sewer system are estimates of average flows from March 1973 when the plant was restarted by Amax to December 1976 when flow meters were installed by the Village. Amax did perform analyses on spot samples for zinc and mercury concentrations in its discharge and the averages are set forth in Exhibit A.

It is also our understanding and belief that the Village of Sauget estimated the amount of sludge attributable to the wastewater discharged by Amax to the Village treatment plant. We have not made a careful search of the Village of Sauget records, other than to determine the actual discharge flows from the Amax plant as shown in the table in Exhibit A, to establish the amount of sludge calculated by the Village as resulting from the Amax Zinc Company discharges to the Village sewer system.

The following is in response to the specific requests for information contained in your August 7, 1989 letter.

1. A reasonable search of files and records has produced no shipping documents or other business documents relating to the transportation, storage and/or disposal of waste materials in the subject area.
2. Amax Zinc Company, Inc. discharged wastewaters from its zinc smelter and refinery to the Village of Sauget sewer system from March 1973 until September 1988.
3. The total volume (in gallons) of wastewater discharged to the Village of Sauget sewage treatment plant from March 1973 to July 1980 (when the lagoons used for sludge disposal in Area II were closed) amounted to approximately 3,428 million gallons. Treatment of the Amax wastewater occurred at the Village of Sauget.

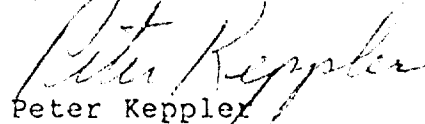
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treatment plant and the sludge was disposed in the lagoons or impoundments adjacent to the plant in Area II.

4. The wastewater from the Amax Zinc plant was transported to the Village of Sauget sewage treatment plant via the municipal sewer lines. The sludge from the Village of Sauget treatment plant was transported to the lagoons or impoundments by a pipeline and dump truck.
5. The wastewater from the Amax plant was transported through the Village of Sauget sewer lines to the municipal treatment plant. The treatment plant was operated by the Sauget Sanitary Development and Research Association.
6. A reasonable search of available records has not produced documents or reports which indicate the chemical composition and/or chemical character of the wastewater discharged by Amax Zinc Company to the Village of Sauget sewer system.
7. Amax obtained and carried through several insurance carriers general comprehensive liability insurance during the time that Amax Zinc Company owned and operated the zinc smelter and refinery in Sauget, Illinois.
8. A reasonable search of available records has produced no evidence of transactions and/or agreements between Amax Zinc Company and the Village of Sauget or the Sauget Sanitary Development and Research Association. Information provided in Exhibit A to this letter is based on copies of invoices contained in files maintained by the Village of Sauget and for 1980, by Big River Zinc Company.

I certify that all of the information contained in this letter and the attached Exhibit A is true and accurate to the best of my knowledge and belief. If additional information or documents regarding transport, storage or disposal of waste material by Amax Zinc Company in the subject area is obtained, the information and/or documents will be forwarded to you.

Yours truly,



Peter Keppler
Assistant General Counsel

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EXHIBIT A

Amax Zinc Company, Inc., Sauget, IL

Sept. 1989

- Wastewater Discharges to the
Village of Sauget Treatment Plant (1972-1980)

1. American Zinc Company (predecessor to Amax Zinc Company, Inc.) operated the zinc smelter and refinery in Sauget, Illinois for a number of years prior to 1972. The plant was shut-down in mid-1971; Amax acquired the plant in mid-1972 and began a major refurbishing program. The roast-acid plant was re-started in March 1973; at this time, Amax commenced discharging wastewater to the Village of Sauget sewer system at the rate of approximately 350,000 gallons per day. In August 1973, the leach-purification process and the cellroom were placed in operation and wastewater discharges increased to approximately 3,500,000 gallons per day. Analyses were performed only for zinc (average .05 grams per liter) and mercury (average .001 milligrams per liter).
2. Wastewater discharges from the Amax plant continued at a rate of approximately 3,500,000 gallons per day until October 1975, when plant modifications (new TCA towers) resulted in major reductions in the wastewater flow to approximately 500,000 gallons per day by December 1975. The discharges continued at this rate until July 1976.
3. In April 1976, Amax started up a new wastewater treatment plant for metals removal to meet pre-treatment requirements. The wastewater flow from the Amax plant was further reduced to approximately 300,000 gallons per day by August 1976. Wastewater analyses performed after the new treatment plant was placed into service indicate the average concentration of zinc was reduced to .02 grams per liter and the average concentration of mercury was reduced to .0005 milligrams per liter.
4. In January 1977, the Village of Sauget installed flow meters to measure the amount of wastewater discharged to the Village sewer system by the Amax plant. The actual monthly flows as shown in the Village of Sauget records (except for 1980) are set forth in the following table:

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	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980*</u>
Dec	7,396	5,209	8,737	10,168
Nov	8,224	6,522	6,503	8,809
Oct	3,387	5,989	7,641	7,418
Sept	9,554	8,494	9,406	7,572
Aug	8,162	8,622	8,636	8,750
Jul	9,523	7,384	8,310	9,585
Jun	15,827	9,134	8,899	7,105
May	14,285	6,335	7,132	-
Apr	12,295	2,059	6,363	6,237
Mar	3,912	6,087	8,743	8,657
Feb	6,850	8,999	9,148	8,378
Jan	20,934**	10,403	7,400	8,950

Flows = gallons x 1000

* Numbers taken from Amax records for 1980.

** This number appears to be in error. It should reflect a number closer to 5,000,000 gallons.

5. In mid-1980, the lagoons used for disposal of sludge from the Village of Sauget sewage treatment plant were closed (these lagoons are in Sauget Sites-Area II). Thereafter, the sludge from the Village of Sauget treatment plant and the new American Bottoms Regional Treatment Plant has been transported to and disposed at other licensed landfills in southern Illinois.

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